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Remarks

Claims 1 and 12-28 are pending. Claims 12, 13, 15, 18, 24 and 26-28 are under examination. Claims 27 and 28 have been amended to clarify the claimed time periods. New claims 29-34 have been added. Support for new claims 29-34 can be found throughout the specification, for example, at page 3, lines 5-10 and 25-26, and at page 5, line 10. Upon entry of the amendment claims 13 and 26-34 will be pending and under examination. Accordingly, these amendments and new claims do not raise an issue of new matter and entry thereof is respectfully requested.

Entry of the proposed amendments is respectfully submitted to be proper because the amendments are believed to place the claims in condition for allowance.

Regarding the Oath/Declaration

Applicants will provide a replacement for the allegedly defective Oath/Declaration under separate cover.

Regarding 35 U.S.C.§ 112, First Paragraph

The rejection of claims 13 and 26-28 under 35 U.S.C. § 112, first paragraph, for allegedly lacking written description of the invention, respectfully is traversed.

The Office Action alleges that only Ponceau 4R, Patent Blue and tartazine were shown and Applicants do not have written description for the additional food colors listed in claim 26. Current Office Action mailed July 11, 2007, page 3, second full paragraph. The Office Action further alleges that gold is not a food color. Current Office Action mailed July 11, 2007, page 3, second full paragraph.

Applicants respectfully direct the Examiner's attention to the preliminary amendment filed concurrently with the parent application U.S.S.N 09/957,658, on September 17, 2001, which amends the specification at page 3, after the third full paragraph to list in full Annex I ("List of Permitted Food Colours") of EC directive 94/36 of June 30, 1994. A copy of the

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Preliminary Amendment is attached for the Examiner's convenience. In view of the concurrently filed Preliminary Amendment, the specification as filed, provides written description for each of the food colors recited in claim 26. In addition, as shown in Attachment 1, Gold is included among the list of permitted food colors of EC directive 94/36. With regard to combinations of food colors, the specification provides written description at page 3, lines 5-10 and 25-26, and at page 5, line 10. Finally, the rejection has been rendered moot with regard to claims 27 and 28, which have been amended above.

In view of the above, removal of the rejection of claims 13 and 26-28 under 35 U.S.C. § 112, first paragraph, for allegedly lacking written description of the invention, is respectfully requested.

Regarding 35 U.S.C. §102

The rejection of claims 12, 15, 23 and 24 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 2,774,673, ("Young") is respectfully traversed for the reasons already made of record. This rejection has now been rendered moot by cancellation of the rejected claims without prejudice.

Regarding 35 U.S.C. §103

The rejection of claims 12, 15, 23 and 24 under 35 U.S.C. §103(a) as being unpatentable over Young is respectfully traversed for the reasons already made of record. This rejection has now been rendered moot by cancellation of the rejected claims without prejudice.

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Conclusion

In light of the Amendments and Remarks herein, Applicants submit that the claims are now in condition for allowance and respectfully requests a notice to this effect. The Examiner is invited to call the undersigned attorney if there are any questions.

Respectfully submitted,

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SDO 88028-1.066741.0029

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PATENT

Our Docket: P-UX 4963

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

)

In re Application of Blum and Kadow

Serial No.: Not yet assigned

Filed: Herewith

For: USE OF FOOD COLOURS TO
DYE ENZYME SOLUTIONS

Attn: Box Patent Application Commissioner for Patents Washington, D.C. 20231

Sir:

11 - 11

Group Art Unit: Not yet known

Examiner: Not yet known

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Calvin Fan

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PRELIMINARY AMENDMENT

The Applicants respectfully submit the following amendments and remarks along with the original Specification.

I. Amendment

A. In the specification

Please amend the Specification by inserting the following new paragraphs:

Page 1, after the title:

This application claims priority under 35 U.S.C. \$ 119 to German patent application 100 46 034.8, filed September 18, 2000. The contents of German patent publication DE 197 37 173 A1 are hereby incorporated by reference.

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Page 3, after the third full paragraph:

Annex I ("List of Permitted Food Colours") of EC directive 94/36 of June 30, 1994, lists the following food colors:

	EC No.	Common Name	Colour	Index
			number	
	E100	curcumin	75300	
	E101	riboflavin, riboflavin-5'-phosphate		
	E102	tartrazine	19140	
	E104	quinoline yellow	47005	
	E110	Sunset Yellow FCF, Orange Yellow S	15985	
	E120	cochineal, carminic acid, carmines	75470	
	E122	azorubine, carmoisine	14720	
	E123	amaranth	16185	
	E124	Ponceau 4R, Cochineal Red A	16255	
	E127	erythrosine	45430	
	E128	Red 2G	18050	
	E129	Allura Red AC	16035	
	E131	Patent Blue V	42051	
	E132	indigotine, indigo carmine	73015	
	E133	Brilliant Blue FCF	42090	
	E140	chlorophylls	75810	
	E140	chlorophyllins	75815	
	E141	copper complexes of chlorophylls	75815	
	E141	copper complexes of chlorophyllins	75815	
	E142	Green[s] S	44090	
	E150a	plain caramel		

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E150b	caustic sulphite caramel
E150c	ammonia caramel
E150d	sulphite ammonia caramel
E151	Brilliant Black BN, Black PN 28440
E153	vegetable carbon
E154	Brown FK
E155	Brown HT 20285
E160a	mixed carotenes 75130
E160a	beta-carotene 40800
E160b	annatto, bixin, norbixin 75120
E160c	paprika extract, capsanthin, capsorubin
E160d	lycopene
E160e	beta-apo-8'carotenal (C30) 40820
E160f	ethyl ester of beta-apo-8'carotenal (C30) 40825
E161b	lutein
E161g	canthaxanthin
E162	beetroot red, betanin
E163	anthocyanins
E170	calcium carbonate 77220
E171	titanium dioxide 77891
E172	iron oxides and hydroxides 77491, 77492, and 77499
E173	aluminum
E174	silver
E175	gold
E180	Litholrubine BK

As used herein, the term "caramel" relates to products of a more or less intense brown color intended for coloring. It does not correspond to the sugary aromatic product obtained from heating

Class IV:

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sugars and not used for flavoring food, such as candies, pastry and alcoholic drinks.

These food colors can be grouped into the following classes:

curcumin, tartrazine, cochineal, carminic acid, Class I:

carmines, azorubine, carmoisine, amaranth

erythrosine, indigotine, indigo carmine, annatto, Class II:

bixin, norbixin, paprika extract, capsanthin

capsorubin, lycopene, beta-apo-8'carotenal (C30), Class III:

> ethyl ester of beta-apo-8'carotenal (C30), lutein, canthaxanthin, beetroot red, betanin, anthocyanins

riboflavin, riboflavin-5'-phosphate

quinoline yellow, Sunset Yellow FCF, Orange Class V:

Yellow S

Ponceau 4R, Cochineal Red A, Red 2G, Allura Red Class VI:

AC, Litholrubine BK

Patent Blue V, Brilliant Blue FCF Class VII:

Green S. Brilliant Black BN, Black PN, Brown FK, Class VIII:

Brown HT

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Class X: vegetable carbon, mixed carotenes, beta-carotene

Class XI: plain caramel, caustic sulphite caramel, ammonia

caramel, sulphite ammonia caramel,

Class XII: calcium carbonate, titanium dioxide, iron oxides

and hydroxides, aluminum, silver, gold

B. In the claims:

Please cancel claims 1 to 11, and then add the following new claims:

- 12. A solution comprising an enzyme and a food color.
- 13. A solution comprising an enzyme and a food color, wherein the enzyme is a restriction enzyme.
- $$14.\ A$$ solution comprising an enzyme and a food color, wherein the enzyme is a polymerase.
- 15. The solution of claim 12, 13 or 14, wherein the food color is selected from the group consisting of curcumin, riboflavin, riboflavin-5'-phosphate, tartrazine, quinoline yellow, Sunset Yellow FCF, Orange Yellow S, cochineal, carminic acid, carmines, azorubine, carmoisine, amaranth, Ponceau 4R,

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Cochineal Red A, erythrosine, Red 2G, Allura Red AC, Patent Blue V, indigotine, indigo carmine, Brilliant Blue FCF, chlorophylls, chlorophyllins, copper complexes of chlorophylls, copper complexes of chlorophyllins, Green S, plain caramel, caustic sulphite caramel, ammonia caramel, sulphite ammonia caramel, Brilliant Black BN, Black PN, vegetable carbon, Brown FK, Brown HT, mixed carotenes, beta-carotene, annatto, bixin, norbixin, paprika extract, capsanthin, capsorubin, lycopene, beta-apo-8'carotenal (C30), ethyl ester of beta-apo-8'carotenal (C30), lutein, canthaxanthin, beetroot red, betanin, anthocyanins, calcium carbonate, titanium dioxide, iron oxides and hydroxides, aluminum, silver, gold and Litholrubine BK.

- $$\,16.\,$$ The solution of claim 12, 13 or 14, wherein the food color is an azo dye.
- 17. The solution of claim 12, 13 or 14, wherein the food color is a triarylmethane dye.
- $$18$. \ \ \,$ The solution of claim 12, 13 or 14, wherein the food color is Ponceau 4R.
- 19. The solution of claim 12, 13 or 14, wherein the food color is Patent Blue V_{\star}
- 20. The solution of claim 12, 13 or 14, wherein the food color is tartrazine.

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f.

21. The solution of claim 12, 13 or 14, further comprising a second food color.

22. The solution of claim 21, wherein the two food colors are selected from the group consisting of Ponceau 4R, Patent Blue V and tartrazine.

II. Remarks

This amendment inserts a priority claim to an application filed in Germany within 12 months of the filing date of this application.

The amendment also incorporates materials referred to in the specification, namely the list of food colors appearing in Annex I. The Applicants submit that because the original Specification explicitly referred to Annex I of EC directive 94/36, copies of which have been published and widely available in the United States, the incorporation does not add new matter.

Claims 1 to 5 have been replaced with new claims 12 to 22. The new claims are filed merely to reorganize and reword the substance of claims 1 to 5 in a style more favorable to U.S. practice. Consequently, the new claims are not filed for any reason of substantive patentability and they do not change their scope.

Claims 6 to 11 have not been replaced with new claims because they are in "use" format, but the Applicants reserve the

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right to pursue the subject matter of these claims in a subsequent related application.

 $\label{the examiner} \mbox{The Examiner is invited to call the undersigned} \\ \mbox{attorney or Cathryn Campbell with any questions.}$

Respectfully submitted,

September 17, 2001

Date

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